Testing Laboratories,

Certificate

LABORATORY NO. 13890

DATE: Jan. 13, 1989

PO #M8290-3

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry. Microbiology, and Technical Services

CLIENT: Alaskan Copper Works

P.O. Box 3546

Seattle, WA 98124

ATTN:

Jim Brown

REPORT ON: LIQUID

SAMPLE

IDENTIFICATION: Submitted 12/30/88 and identified as shown:

12-1-3200-M8291

2) 12-6-3200-M8291

3) 12-8-3200-M8291

4) 12-13-3200-M8291

5) 12-15-3200-M8291

6) 12-20-3200-M8291

12-22-3200-M8291

8) 12-27-3200-M8291

9) 12-29-3200-M8291

10) 12-29-3600-M8293

11) 12-29-3600-M8290

12-29-3200-M8292 12)

parts per million (mg/L)

	1		3	4	5
Chromium	2.1	1.6	1.4	0.86	0.88
Copper	0.46	1.0	0.46	0.27	0.34
Nickel	1.4	1.1	0.96	0.63	0.60
Zinc	0.090	0.12	0.068	0.061	0.057



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Chemistry, Microbiology, and Technical Services

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Alaskan (Copper	Works
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	<pre>parts per million (mg/L)</pre>					
	6		8	9	10_	
Chromium Copper Nickel Zinc	0.58 0.29 0.39 0.071	1.0 0.46 0.68 0.11	3.8 1.2 3.0 0.25	1.0 0.53 0.76 0.12	0.66 0.30 0.63 1.2	

	11	12
Specific Gravity @ 25°C	1.196	1.006
Total Acidity, calculated as % HNO3 (methyl orange end point)	4.3	1.4

Key

< = less than

Respectfully submitted,

Laucks Testing Laboratories, Inc.

1. M. Owens

JMO:veg



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